

# Overview and Recommendations for Transportation Performance Measures

## Report of the Outcome Measures Subcommittee

Young Ho Chang  
Subcommittee Chairman  
March 30, 2007

# OM Subcommittee Charge

- Review and assess current transportation accountability and performance methods
- Identify and recommend national best practices in accountability and performance for transportation
- Recommend quantifiable outcome measures including land use and transportation coordination
  - Identify and recommend key strategic goals and associated outcome measures
- Consider quantifiable ways to measure a project's community impacts

# OM Subcommittee Schedule

- February
  - Review national best practices
  - Review current Virginia accountability and performance methods
  - Recommend strategic goals
- April
  - Review performance measures
  - Recommend outcome measures for strategic goals (except for land use and community impacts)
- May
  - Review land use and transportation measures
  - Review community impact measures
  - Recommend outcome measures for land use and transportation coordination and community impacts of transportation projects
- June
  - Meeting if needed to finalize recommendations

# Subcommittee Meeting

## February 21, 2007

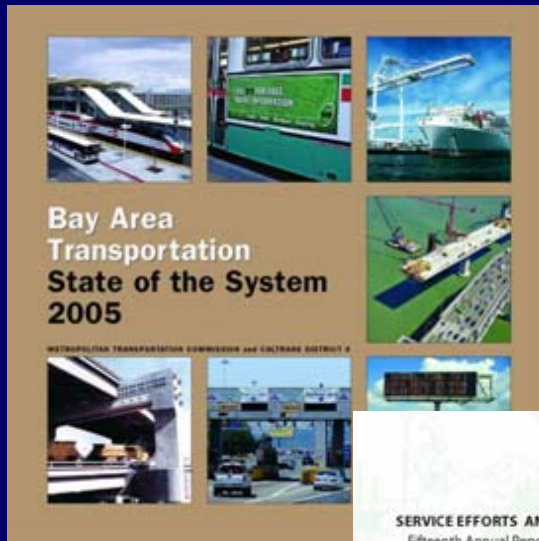
- National Best Practices – Lance Neumann
  - Uses of Performance Measures
  - Examples from Other States
  - Findings
- Virginia's Performance Report 2006 – Mary Lynn Tischer
  - Origins
  - Goals
  - Framework
- Current Performance Measures – Kimberly Spence
- Outcome Measures Subcommittee Findings

- Performance Measurement Trends
  - Transportation agencies have used a variety of performance measures for years
  - “Performance Management” has emerged as an accepted and expected management practice among transportation agencies in the last 10 years
  - Focus of most efforts
    - Performance of the system
    - Performance of the agency
    - Program delivery
    - Customer satisfaction

# National Best Practices

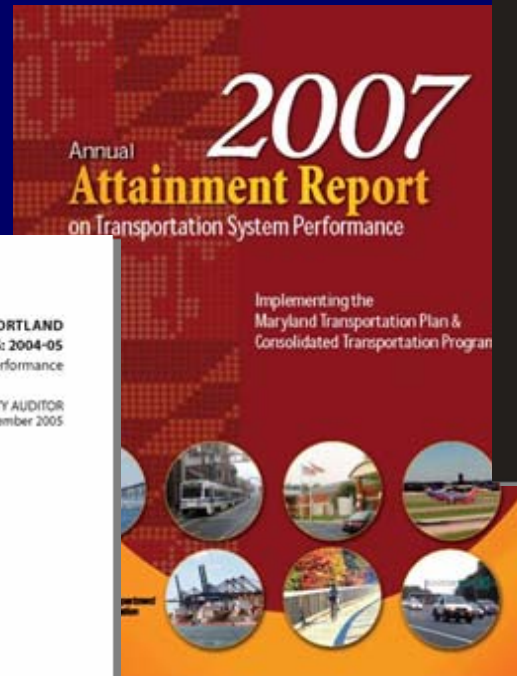
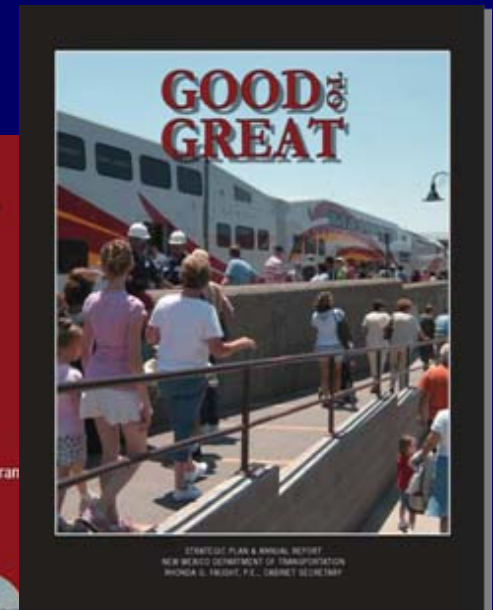
- Uses of Performance Measurement
  - Defining goals in long-range plans and programs
  - Periodic performance reporting “state-of-the-state” or region
  - Real-time reporting of system conditions
  - Guiding resource allocation and budgeting decisions
  - Driving results throughout an agency
  - Establishing/maintaining credibility and accountability
  - Communicating to various stakeholders

# National Best Practices

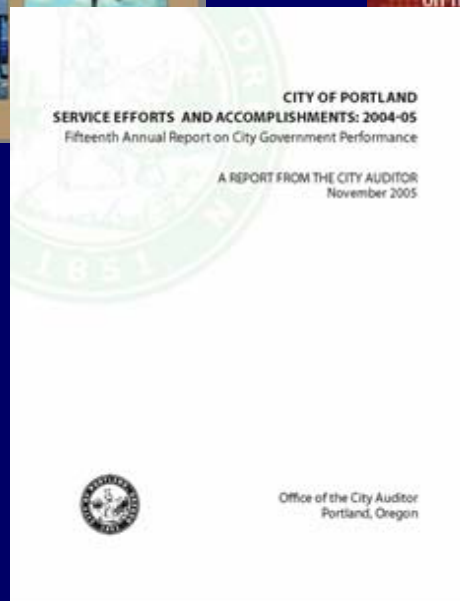


*State of the System 2005*  
Bay Area Transportation

*Good to Great*  
*Strategic Plan and Annual Report*  
New Mexico DOT



*2007 Annual Attainment Report*  
Maryland DOT

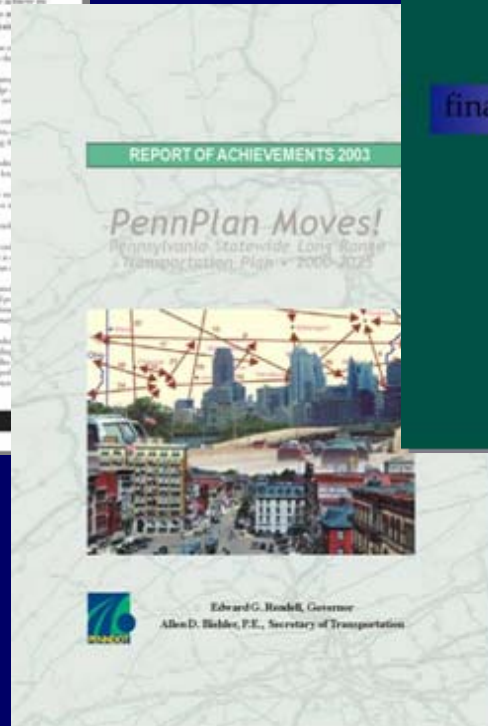


*Service Efforts and Accomplishments*  
City of Portland, Oregon

# National Best Practices



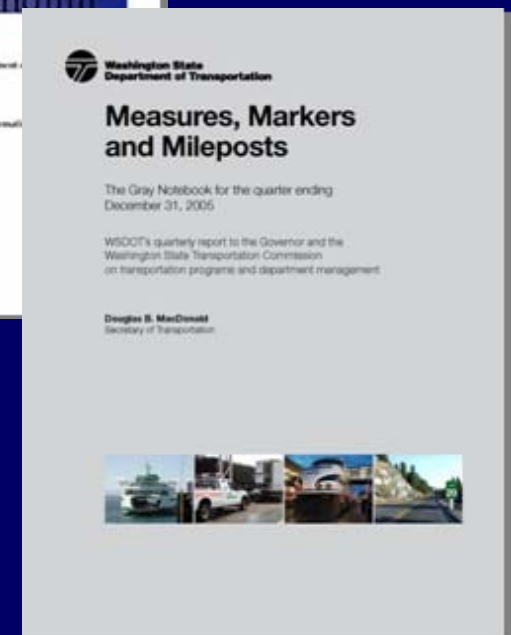
**ODOT Business Plan 2004 & 2005**  
Ohio Department of Transportation



**PennPlan Moves! Report of Achievements 2003**  
Pennsylvania Department of Transportation



**Final Technical Memorandum**  
**Task 10 – Performance**  
**Factors and Measures**  
Cambridge Systematics, Inc.  
for the Arizona Department  
of Transportation



**Measures, Markers and Mileposts**  
Washington State Department of Transportation

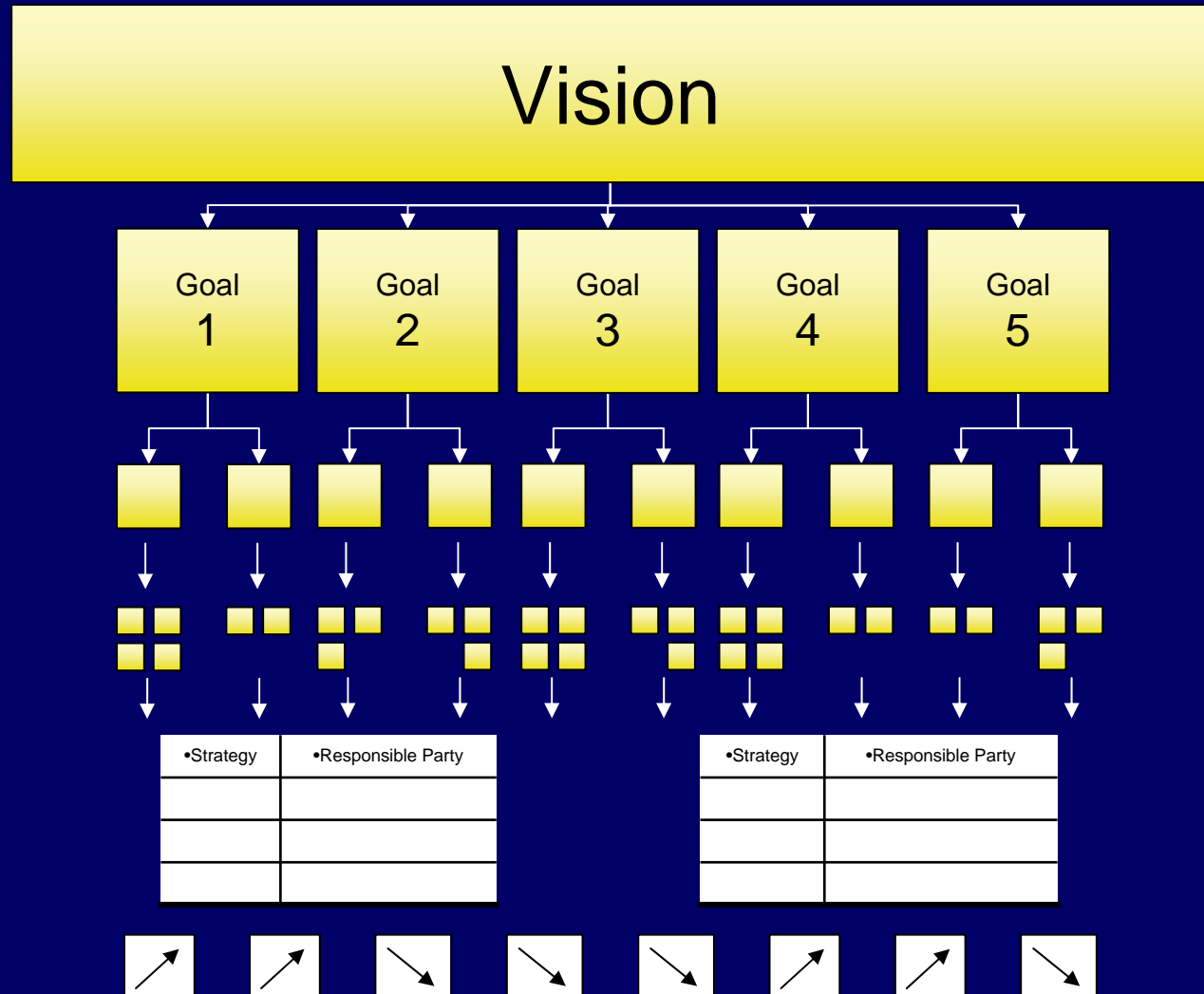
# National Best Practices

- Conclusions
  - Defining, tracking, and reporting on a broad range of transportation performance measures is the state of the practice
  - Focus of different agency efforts varies widely
  - Many examples and resources are available
  - Virginia is a lead state though there are always areas for improvement

# 2006 VA Performance Report

- The VTrans2025 Action Plan
  - The Commonwealth should progress toward performance-based planning and programming
  - Multimodal performance measures should be tied to the VTrans2025 goals
- Code of Virginia
  - §2.2-229 requires the Multimodal Office to develop transportation performance measures and prepare an annual performance report on state and regional efforts
  - Item 442 of Appropriations Act (2006) requires that the Multimodal Office work directly with MPOs to develop quantifiable and achievable regional goals

- **Vision:** a transportation system that is safe, enables easy movement of people and goods, enhances the economy, and improves our quality of life
- **Goals**
  - Provide a Safe and Secure Transportation System
  - Preserve and Manage the Existing System
  - Facilitate the Efficient Movement of People and Goods
  - Ensure Economic Vitality
  - Improve Land Use Coordination and Quality of Life



## *Performance Measures*

## *Strategies*

**Number and Rate of Fatalities**

**Number and Rate of Injuries**

**Compliance with the Maritime Transportation Security Act**

**Percentage of Updated Emergency, Disaster, and Evacuation Plans**

**Percentage of Airports Participating in the Voluntary Security Certification Program**

- > Increase safety belt usage to 82 percent
- > Reduce intersection crashes
- > Upgrade 25 rail crossings by 2007
- > Expand Highway Safety Corridor Program
- > Reduce the number of alcohol-related crashes

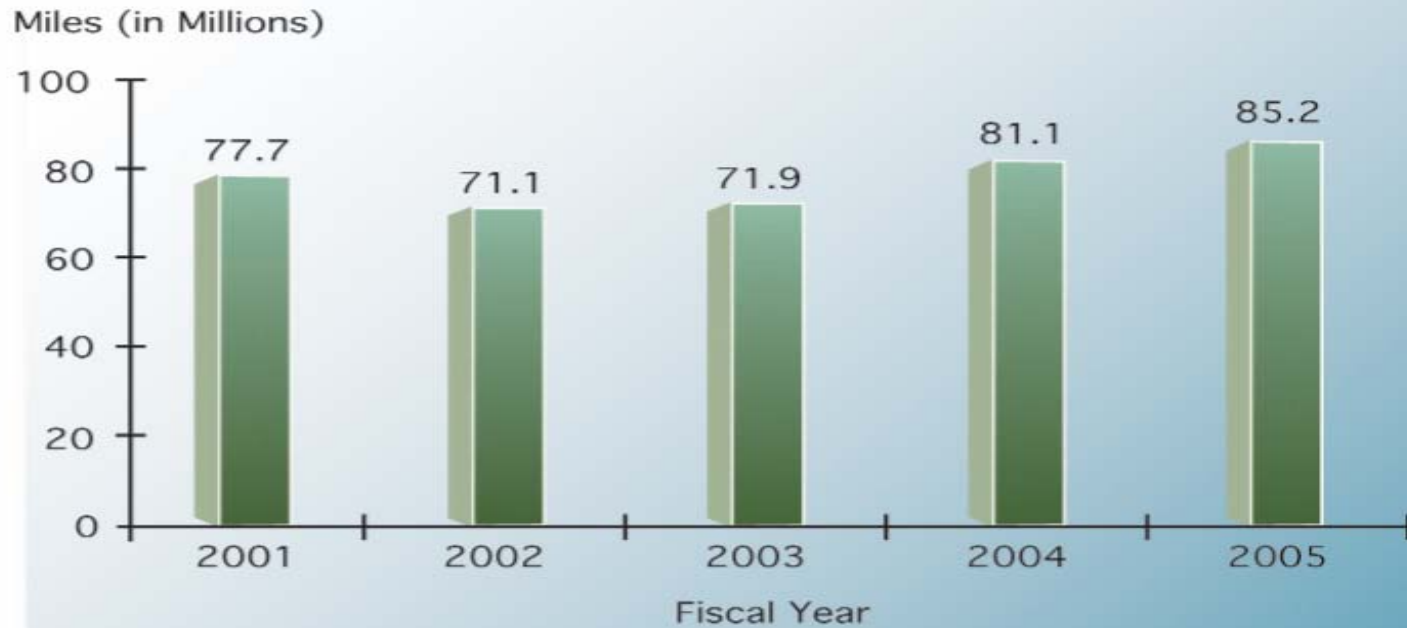
- > Operate a radiation detection system
- > Install electronic gates at terminals
- > Use closed-circuit television surveillance systems

- > Install I-64 lane reversal gates
- > Operate a 24-hour Transportation Emergency Center
- > Maintain the Strategic Highway Network

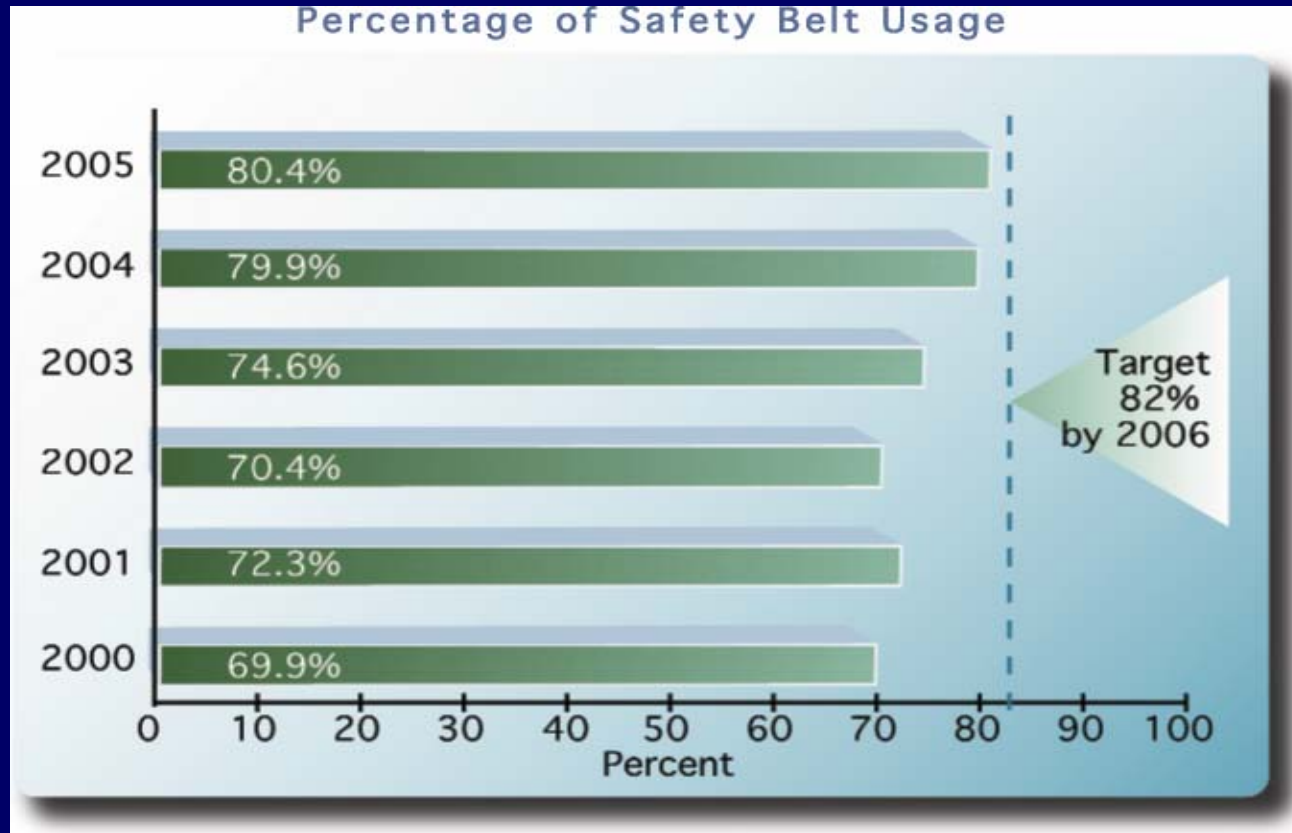
- > Assist airports in developing security programs

# Mobility

## *Transit Vehicle Revenue Miles*



# Safety Belt Usage



## Ports

- Scan all import containers for radioactive material
- Install electronic gates at terminals
- Use closed circuit TV surveillance systems

# Current Performance Measures

## Safety and Security

Performance Measure	Performance Trend	Desired Trend
Number and Rate of Fatalities	→	↓
Number and Rate of Injuries	↓	↓
Compliance with the Maritime Transportation Security Act	✓	→
Percentage of Updated Emergency, Disaster, and Evacuation Plans	✓	→
Percentage of Airports Participating in the Voluntary Security Certification Program	→	↑

# Current Performance Measures

## Preservation and Management

Performance Measure	Performance Trend	Desired Trend
Condition of Pavement	✓	→
Percentage of Bridges that Need Repair or Rehabilitation	Prior years data Unavailable	↓
Percentage of Transit Vehicles that Exceed Replacement Age	Prior years data Unavailable	↓
Average Service Wait Time	↑	↓
Average Clearance Time for Highway Incidents	Prior years data Unavailable	↓
Increase Port Capacity of Cargo per Acre	↑	↑

# Current Performance Measures

## Mobility, Accessibility, and Connectivity

Performance Measure	Performance	Desired Trend
Transit Ridership	↑	↑
Transit Vehicle Revenue Miles	↑	↑
Percentage of Congested Lane Miles	Prior years data Unavailable	→
Number of Enplanements at Air Carrier Airports	↑	↑
Cargo Volume through the Port of Virginia (TEUs Shipped)	↑	↑

# Current Performance Measures

## Economic Vitality

Performance Measure	Performance
Per Capita Income	7 <sup>th</sup> highest in the nation
Unemployment Rate	2 <sup>nd</sup> lowest in the nation
Annual Percent Change in Employment	+2.5%
Business Climate	Forbes Magazine “Best Site for Business”

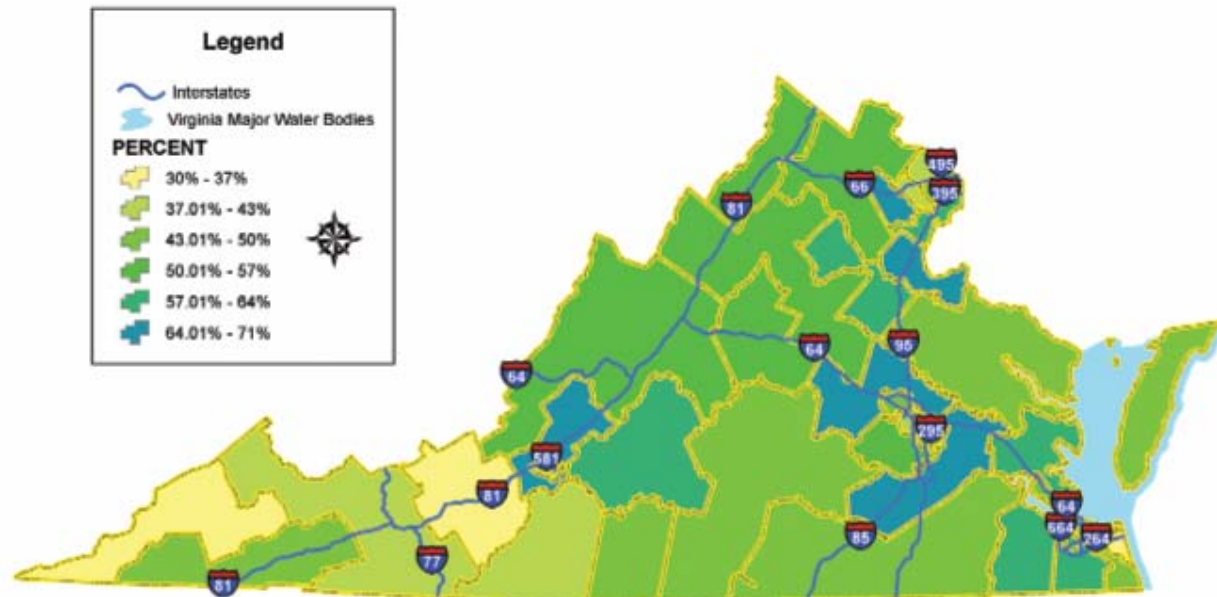
# Current Performance Measures

## Land Use Coordination and Quality of Life

Performance Measure	Performance	Desired Trend
Tons of Transportation-Related Emissions	↓	↓
Fuel Usage per Capita	↑	↓
Congested Lane Miles	Prior years data Unavailable	↓
Annual Hours of Delay per Year per Traveler	↑	→
Acreage of Land Preserved	↑	↑

Percent of Workers 16 Years and Over Who Worked Outside  
County of Residence, 2005

at the Public Use Microdata Area (PUMA) Level



\*Data provided by the U.S. Census Bureau from the 2005 American Community Survey. As of the publication date of this data, complete coverage for the state was not completed therefore the data is an average for the geographic area.

# OM Subcommittee Findings

- Strategic Goals
  1. Safety – To provide a safe transportation system
  2. Security – To provide a secure transportation system
  3. System Management and Preservation – To preserve and manage the existing transportation system
  4. Mobility, Connectivity, and Accessibility – To facilitate the efficient movement of people and goods, improve interconnectivity of all transportation modes, and provide accessibility for all
  5. Economic Vitality – To improve Virginia's economic vitality
  6. Coordination of transportation and land use – To facilitate the coordination of transportation and land use activities
  7. Fiscal Responsibility – To efficiently and effectively invest transportation funds and improve program delivery
  8. Environmental Stewardship – To improve environmental quality

Quality of life was also identified as an important, but undefined, factor

# OM Subcommittee Findings

- The goals identified in VTrans2025 and the 2006 Performance Report are reasonable and sufficiently broad to be used as a starting point
- The eight goals as shown are the same as current goals
- Performance measures should have targets that are realistic and tied to available revenues
- The effect of additional revenue on performance targets should be presented
- Overarching goals need to be adopted and embraced by appropriate boards and management
  - Measures are meaningless without goals

# Questions?